

SAGE WINDS

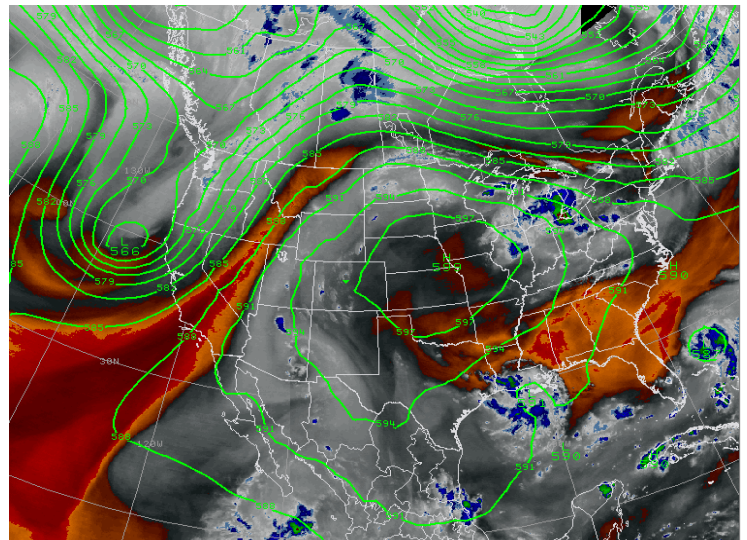
NATIONAL WEATHER SERVICE — BOISE, ID

<http://www.weather.gov/boise>

AUGUST 2011

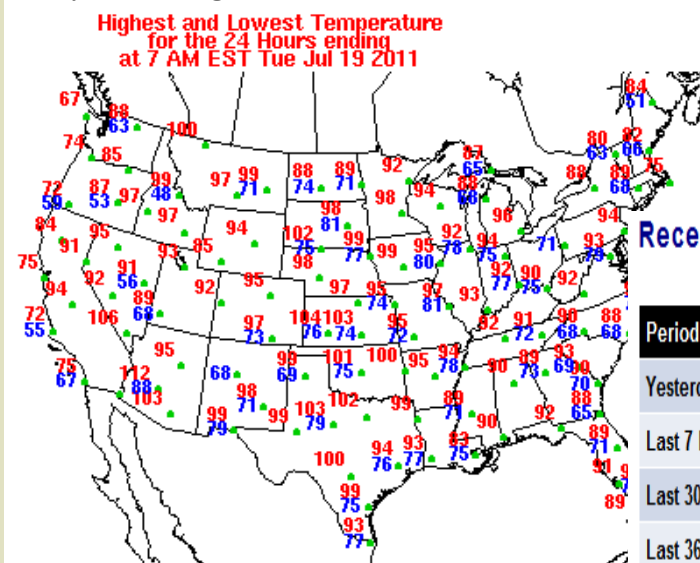
We're Having a Heat Wave...

A massive ridge of high pressure has dominated the long-wave weather pattern for over two weeks, causing abnormally hot and humid conditions across much of the Midwest and Southern Plains. Due to the positioning of this quasi-stationary high, Texas, Oklahoma, Missouri, Kansas, and Arkansas have experienced the brunt of the sweltering conditions. The water vapor image at top right has been overlaid with 500 mb heights to show the position of this system on July 18th.



The image at bottom left gives a sampling of high temperatures from the same afternoon.

Many record highs have been broken



across the country, including record high maximum temperatures *AND* record high minimum temperatures. In fact, 177 all-time records (highs and lows) were broken in the seven days spanning July 19th through July 25th. Refer to the "Recent Records Totals" (below, courtesy of NCDC) for more details on recently broken all-time records.

Recent Records Totals

Daily | Monthly | All-Tim

Period		Hi Max	Hi Min
Yesterday	Jul 25, 2011	1	4
Last 7 Days	Jul 19 - 25, 2011	58	119
Last 30 Days	Jun 26 - Jul 25, 2011	96	183
Last 365 Days	Jul 26, 2010 - Jul 25, 2011	141	357
Month to Date	Jul 1 - 25, 2011	70	180
Year to Date	Jan 1 - Jul 25, 2011	121	220

ed by NOAA National Centers for Environmental Prediction,
Hydrometeorological Prediction Center

What is the “Heat Index”?

The “heat index” integrates standard air temperature and relative humidity to calculate an associated “human-perceived” temperature. The table to the right displays different temperatures, relative humidities, and their corresponding heat indices or “feels like” temperatures. Note that the relative humidity required to increase the heat index above the air temperature is much *less* at high temperatures than it is at cool temperatures.

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RELATIVE HUMIDITY (%)	AIR TEMPERATURE (F)															
	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
5	78	80	81	83	85	86	88	89	91	93	94	96	97	99	101	102
10	78	80	81	83	84	86	88	89	91	93	95	97	99	101	103	105
15	78	80	81	83	84	86	88	90	92	94	96	98	100	103	105	108
20	79	80	81	83	85	86	88	90	93	95	97	100	103	106	109	112
25	79	80	82	83	85	87	89	91	94	97	100	103	106	109	113	117
30	79	80	82	84	86	88	90	93	96	99	102	106	110	114	118	122
35	80	81	83	85	87	89	92	95	98	102	106	110	114	119	123	129
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	92	96	100	104	109	114	119	124	130	137	143
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129					
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	106	112	119	126							
75	84	88	92	97	103	109	116	124								
80	84	89	94	100	106	113	121									
85	85	90	96	102	110	117										
90	86	91	98	105	113											
95	86	93	100	108												
100	87	95	103													

Blank area is where dewpoint > 85F

Heat disorder risk CAUTION

EXTREME CAUTION

DANGER

EXTREME DANGER

July 20, 2011: Observations & Associated Heat Indices

Location	Temp.	Dewpt.	Rel. Humidity	Heat Index
Tulsa	103°	82°	52%	130°
Des Moines	99°	79°	53%	118°
Omaha	100°	82°	57%	120°
St. Louis	100°	82°	57%	120°
Boise	82°	54°	38%	81°

The table to the left gives a sampling of surface observations from several cities on July 20, 2011. Heat indices of 105°-130° F create dangerous conditions in which heat cramps and exhaustion are likely. At heat indices of 130° F and above, heat *stroke* becomes likely with continued exposure. Note Tulsa, Oklahoma’s extremely dangerous heat index of 130° F.

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[“Preparing for Extreme Heat” - The Center for Disease Control](#)

Weather In the News

[RARE Snow in Atacama Desert, Chile \(NASA\)](#)

[Record Rainfall in Chicago \(Chicago Tribune\)](#)

[Tropical Storm Emily Barrels Toward Fragile Haiti \(AFP\)](#)

[Red Cross Offers Relief Aid to N. Korea \(AP\)](#)

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The Phoenix Dust Storm—July 2011



Strong downburst winds of 50+ mph combined with pre-existing drought conditions to kick up one of the most impressive U.S. dust storms seen in years. The outflow winds initiated from strong thunderstorms located southeast of Phoenix, near Tucson, Arizona. The drought conditions allowed these outflow winds to pick up excess dust, sand, and loose topsoil, and subsequently carry it northwest into Phoenix.

In terms of size, the dust storm was immense. At its peak, it was estimated to be 1 mile high and approximately 100 miles wide along the leading edge. On the ground, it traveled a distance of more than 150 miles.

A detailed account of this storm, with video and additional photos, has been archived on the NWS—Phoenix website: [“Major Dust Storm Moves Through Arizona”](#).

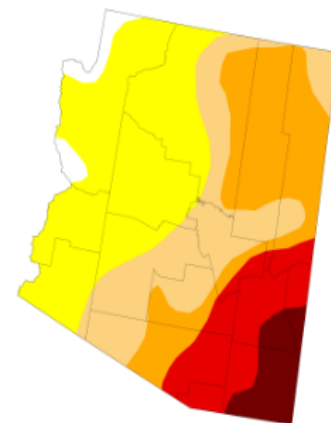
Mike Olbinski, Phoenix photographer, captured some amazing video and stills of the dust storm. They can be viewed here: [The Phoenix Haboob of July 5th, 2011—Mike Olbinski](#).

U.S. Drought Monitor Arizona

June 28, 2011
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.46	97.54	61.64	40.02	18.27	5.62
Last Week (06/21/2011 map)	22.60	77.40	56.26	28.69	18.27	5.62
3 Months Ago (03/29/2011 map)	24.84	75.16	47.39	21.37	10.96	0.00
Start of Calendar Year (12/28/2010 map)	31.40	68.60	32.45	0.00	0.00	0.00
Start of Water Year (09/29/2010 map)	40.00	60.00	18.58	3.23	0.00	0.00
One Year Ago (06/23/2010 map)	59.75	40.25	14.64	2.66	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, June 30, 2011
Richard Heim/Liz Love-Brotak, NOAA/NESDIS/NCDC

^^ Arizona Drought Conditions as of June 28, 2011— one week before the dust storm.

August Outlook

<< Temperature Outlook

Precipitation >> Outlook

<http://www.cpc.noaa.gov/>

